

CLAIMS

1. A combustion catalyst for treating a suspended particulate matter in a diesel exhaust gas, said combustion catalyst comprises: a carrier composed of oxide ceramic particles comprising a ceria-zirconia or a ceria-praseodymium oxide; and a precious metal or an oxide thereof as a catalytic component loaded on the carrier.
2. The combustion catalyst for treating a diesel exhaust gas according to claim 1, wherein the carrier has a ceria content of 45 to 95 wt%.
3. The combustion catalyst for treating a diesel exhaust gas according to claim 1 or 2, wherein the carrier is composed of oxide ceramic particles further comprising yttria or lanthanum oxide.
4. The combustion catalyst for treating a diesel exhaust gas according to claim 3, wherein the carrier has a ceria content of 45 to 95 wt%, and a content of yttria or lanthanum oxide of 0.1 to 15 wt%.
5. The combustion catalyst for treating a diesel exhaust gas according to any one of claims 1 to 4, wherein the precious metal as the catalytic component is ruthenium.
6. The combustion catalyst for treating a diesel exhaust gas according to claim 5, wherein the carrier has a loading of ruthenium of 0.1 to 10 wt% based on the carrier weight.

7. The combustion catalyst for treating a diesel exhaust gas according to any one of claims 1 to 4, wherein the precious metal as the catalytic component is iridium.

5 8. The combustion catalyst for treating a diesel exhaust gas according to claim 7, wherein the carrier has a loading of iridium of 0.1 to 10 wt% in terms of the carrier weight.

9. The combustion catalyst for treating a diesel exhaust gas according to 10 any one of claims 1 to 4, wherein the precious metal as the catalytic component is platinum or silver.

10. The combustion catalyst for treating a diesel exhaust gas according to claim 9, wherein the carrier has a loading of platinum or silver of 0.1 to 15 10 wt% in terms of the carrier weight.

11. The combustion catalyst for treating a diesel exhaust gas according to claim 5 or 6, wherein the catalytic component further comprises iridium and/or silver.

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12. The combustion catalyst for treating a diesel exhaust gas according to claim 11, wherein a loading ratio of ruthenium to iridium (ruthenium:iridium) is 1:20 to 20:1.

25 13. The combustion catalyst for treating a diesel exhaust gas according to claim 11, wherein a loading ratio of ruthenium to silver (ruthenium:silver) is 1:10 to 10:1.

14. The combustion catalyst for treating a diesel exhaust gas according to claim 7 or 8, wherein the catalytic component further comprises at least one of platinum, rhodium, ruthenium, palladium and silver.

5 15. The combustion catalyst for treating a diesel exhaust gas according to claim 14, wherein a loading ratio of iridium to platinum (iridium:platinum) is 1:30 to 30:1.

10 16. The combustion catalyst for treating a diesel exhaust gas according to claim 11, wherein a loading ratio of iridium to rhodium (iridium:rhodium) is 1:30 to 30:1.

15 17. The combustion catalyst for treating a diesel exhaust gas according to any one of claims 1 to 16, wherein the carrier is formed on a surface of a metal base via wash coating.

18. A method for combustion treatment of a diesel exhaust gas, comprising the steps of: collecting a suspended particulate matter in a diesel exhaust gas, and burning/eliminating the collected suspended particulate matter by the catalyst according to any one of claims 1 to 17.